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Ballast device for a discharge lamp

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5 The invention relates to a ballast device for a discharge lamp, having a DC voltage supply stage, semiconductor switches which are switched at a radiofrequency clock frequency for the purpose of changing the current direction through the discharge lamp, a starting transformer, to which the DC voltage of the DC voltage supply stage can be supplied via a series capacitor, and a ballast inductance which is connected to an electrode, not connected to the starting transformer, of the discharge lamp.

15 Numerous embodiments are known for ballast devices for discharge lamps, such as arc lamps. The common factor with these ballast devices is the fact that the current direction of the ignited arc in the discharge lamp needs to be changed continuously in order to prevent one of the electrodes being exhausted at one end.

20 It is known for the current direction to be reversed even at a very high clock frequency of, for example, 300 to 400 kHz. In this case, resonance phenomena in the discharge lamp are reliably prevented, since resonances of the discharge lamps are at markedly lower frequencies. Radiofrequency clocking makes it possible for the ballast device to be small in size, since comparatively low inductances are required. Furthermore, the ballast device run quietly and largely without any harmonics.

30 The DC voltage is supplied from the DC voltage supply stage, which is preferably in the form of a step-up converter, via a series capacitor which is required for recharging purposes for the change in current direction. The series capacitor is dimensioned such that approximately half the voltage supplied from the DC voltage supply stage is present across it, with the